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A Pathological Change at the Base
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Organ.

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During the last decade the advance in laryngology has been so great that the number of cases of nervous origin, or functional, has been so vastly reduced that the so-called nervous and hysterical cases are becoming rather limited in their number. It has only been within this period that attention has been called to several important pathological lesions situated at the base of the tongue giving rise to symptoms which seemed never to be relieved by the methods of treatment previously in vogue but now completely cured, enabling us to relegate a large number of so-called nervous cases to their proper sphere. It is in hope, by calling attention to some further changes in this organ, of still further reducing the number of nervous cases that I present the following paper. We recognize, most thoroughly, that there are a certain number of cases presenting no pathological changes, due seemingly to perversity, that may forever belong to this sphere, but that there are still a large number that will be withdrawn from this field of uncertainty no one doubts.

On July 1, a lady was referred to me by Dr. H. D. Fry, who in a note stated that the lady supposed a fish bone to be lodged in her throat and she claimed the same having remained there since—a period of six weeks. She made the same statement to me and added that shortly after she made attempts to remove the object with her finger, but was unsuccessful. The bone continued to give her considerable annoyance, especially

during the intervals between meals, causing her to make frequent efforts at "empty swallowings." While she could always feel the presence of the body yet its position was never such as to cause any interference with the act of deglutition, nor to any apparent obstructive sensations. She states that the swallowing of bread-crust would diminish, momentarily, the intensity of her sensations, which was no doubt due to the roughness of the bread "scratching" the mucous membrane. The supposed location, she states, was somewhat lower at first than at present. The location of the sensation frequently changed, at one time being on the right, again on the left side and then in the middle of the throat.

Such a history as the above, with regard to the change of location in the position of the bone, seemed quite unusual for that of a foreign body—such bodies, especially if pointed, usually remain fixed in the position they originally take. The pharynx and larynx I examined with the utmost care, although little expecting, on account of symptoms given, to find any trace of the supposed origin of the trouble. My examination not being attended with success, and as the patient was unusually tolerant, I determined to make a digital examination of her throat. This was also unsuccessful. I subjected her to three subsequent examinations, all of which were attended with the same result. The only deviation from the normal noticed in the throat, which arrested my attention during the first examination, was a peculiar vascular condition of the right base of the tongue. This condition I did not at first attach as much importance to as upon subsequent examinations and more mature consideration. A similar condition, attended with exactly an analogous train of symptoms, not arising from an analogous cause, we have since noted in another patient. The pathological change which I refer to is the existence of a small area of ecchymosis or submucous hem-

orrhage grouped together like a bunch of grapes. This area of hemorrhage effusion, or "spots" as I shall designate them, had the appearance as though small red shot had been deposited beneath the mucous membrane. The area of effusion varied from one to one and a half centimeters in length and from one-half to three-fourths in breadth; while the individual spots varied from one-half to one millimeter in diameter. These spots while not being hard yet cause sufficient elevation of the mucous membrane to make them distinctly discernible to the sense of touch. As I have stated above, I noticed this condition during my first examination but almost immediately dismissed it from mind as I thought it probably due to the irritation caused by the presence of the foreign body. During my second examination these spots aroused my suspicion and I determined to touch them lightly with the probe. On touching the spots and requesting the patient to state whether I was near the point at which she located the sensation, she intimated that I had touched the exact point. She then informed me that she was now certain that I would be able to remove the object inasmuch as I had been so successful in going directly to the point where it was located. After three days she reported again, her face radiant, and greeting me with unusual cordiality, she stated that she had certainly felt the bone with unusual distinctness within the last hour. It had changed its position from right to left. On introducing my mirror I was somewhat surprised to find the same pathological condition manifested on the left side that I had previously noted, three days before, on the right. A few days later I noted a similar condition near the centre of the base of the tongue, and with this new focus an alteration of the supposed site of the bone to this new point. On each subsequent examination we noticed that the previously existing spots had diminished somewhat in area as well as distinct-

ness. The effused blood gradually became absorbed.

On July 22 a lady whose daughter had previously been under my treatment, presented herself for the purpose of having her throat examined. Her train of symptoms were as follows : She had for several months, at varying intervals, a sensation in her throat as though something was lodged there which she must remove. This something felt scratchy, as she expressed it, very much as though there was a small area of roughness in her throat. She had had these same peculiar sensations some eight months before, but they had subsided after several weeks' duration. On different occasions she located the sensation in different positions—at one time to the right, again to the left, a little higher and then lower. She never suffered pain nor was there any obstruction of the throat or difficult deglutition. She had previously been under treatment. A spray had been placed in her hand which she was diligently using upon a normal nasal and pharyngeal mucous surface. On making a larynxal examination I was very much surprised by the great resemblance which this case bore to the preceding one ; the whole mucous surface of the larynx, pharynx and naso-pharynx, excepting that portion covering the base of the tongue, had a normal appearance. The base of the tongue presented the same pathological change, the hemorrhagic effusion, which I had noted in the preceding case. Although my experience in the preceding case would have justified my concluding that there was a certain causal relationship existing between the pathological changes present and the symptoms manifested, I was not hasty in drawing a conclusion but rather waited for further developments.

Five days later, after an almost complete subsidence of all symptoms, as well as a diminution in size and prominence of the spots, many of the smaller ones having completely disappeared, she

had an increase in the intensity of her symptoms, and on making an examination a new area of hemorrhage was visible, larger and more prominent, situated three-fourths of a centimeter to the right of the former area. I introduced a probe, and in order to avoid any possible error, told the patient to indicate when I had touched the point at which she located her abnormal sensations. When the probe came in contact with the first effusion she stated that there she felt an unpleasant sensation, but not until I passed gently over the surface of the new effusion did she give any evidence of certainty as to location. I now could hardly resist the conclusion that there was, in this case, a direct causal relationship existing between the pathological changes present and the symptoms manifested. In these two cases we have symptoms almost analogous, their origin ascribed to different causes, presenting pathological changes which are identical in their character. The important question is to decide what relationship exists, if any, as regards cause and effect between the only pathological change present and the peculiar train of symptoms manifested. It is important to decide whether the symptoms existing, necessarily nervous, gave rise to the pathological changes, or whether the pathological changes having been produced were the cause of the train of symptoms manifested. Supposing the phenomena to be of a nervous character, is it possible that the patient by repeated and frequent efforts at clearing of the throat, rasping and coughing—in the effort to remove the supposed foreign body—is capable of producing a hemorrhagic effusion in this position. Admitting the hemorrhage to be produced in the manner mentioned above—no pathological change being present—is it possible for the seat of the supposed foreign body to change from that at which it was formerly located to the seat of the effusion. The hemor-

rhagic effusion gradually undergoing absorption, with a subsidence of the symptoms, a re-occurrence of the effusion in a somewhat removed position being attended by a re-occurrence of symptoms in their original intensity—supposing no pathological change primarily to have been present—is it possible with the full disappearance of the effusion that the symptoms will also completely subside. In other words, is it possible for a purely nervous phenomenon to attach itself to a demonstrable pathological lesion, subside with the disappearance of the lesion, recur with its re-occurrence, and to disappear entirely with the disappearance of the lesion.

The first and most important interrogation to answer, is the one in regard to the possibility of the patient, mechanically, producing the pathological lesion mentioned. During the effort of clearing the throat as well as retching the tongue is entirely a passive organ, not sufficient muscular force being used to rupture a weakened arteriole even in a state of congestion; nor do I consider sufficient congestion of the vessels of this organ to be produced, during these efforts, to produce a rupture of the capillaries at its base. We have never before noticed an analogous condition in any throat, and if seen by others they have never attached sufficient importance to it to give it a description. It is quite possible that the condition may be the same as that known as miliary aneurisms of the tongue. Butlin states: "Ecchymosis may occur in or beneath the mucous membrane from other causes than purpura;" he goes not farther, and does not mention the nature of other causes. In the cases here mentioned the patients were known not to have made any violent efforts, of the kind mentioned, and after coming under my care no efforts of this character were made, yet the effusion re-occurred several times in both cases. The burden of proof rests on the other side.

Admitting the possibility of the second supposition, which could be manifested possibly in certain phases of hysteria and melancholia—a laryngitis often causing the syphilophobiac to suppose that the chancre has re-appeared in his throat—we must admit that our patients were hysterical or melancholic. Our patients were robust women of a decidedly phlegmatic temperament, displaying no nervous phenomena of any character. They were of 50 and 45 years of age.

Even admitting the patients to be of a hysterical temperament, and the original phenomena to be hysterical, followed by the hemorrhagic effusion—mechanical in its origin—is it possible that the symptoms should disappear with the complete disappearance of the only pathological lesion manifested. I could hardly conceive of such a condition; therefore am rather forced to the conclusion that the hemorrhagic effusion was the original pathological lesion which gave rise to the subsequent symptoms.

In one case, that of the fish bone, the probable irritant was a bone which may or may not have found lodgment in the throat. The foreign body, if it ever entered the throat, must have been immediately expelled by the effort of coughing, excited by its presence. I am rather inclined to believe that no such object ever found lodgment in the patient's throat; the effusion occurred about the same time, and she supposed the symptoms produced thereby to be the result of the fish bone. We know how unreliable the statements of patients are in regard to such matters. Patients very frequently persist in asserting that a foreign body is still lodged in the throat, weeks after the occurrence, when its lodgment was only momentary. In all cases where foreign bodies lie imbedded in the substance of the tongue it gives unmistakable evidences of its presence. *The wound does not heal* and it lies in the midst of an indolent tumor, the wound lead-

ing down to its surface. I think we must conclude that the fish bone never was present in this case; the eating of fish and the effusion occurring simultaneously, the patient immediately ascribes the phenomena produced by the effusion, to the lodgment of a bone. We can readily conceive how such would be the case, as a hemorrhage would be almost as sudden in its production—the train of symptoms as suddenly produced—as those produced by the swallowing of a bone.

In our second case we have a much simpler condition of affairs, and one in which there is not the same doubt as to the origin of symptoms. Here our patient came to me with a feeling of fulness in her throat, and the sensation of a foreign body lodged there—resembling very much the sensation imparted by a crumb of dry toast. These symptoms being greater at one time than another, and varying in their location. It seems to me that my position, at least in these two cases, is proven beyond doubt. We have here a pathological lesion, producing a train of symptoms which ameliorate and disappear with a diminution of and disappearance of the change; the symptoms to re-occur in their full intensity in another locality, with the reappearance of pathological changes in another position, the symptoms to completely subside with the disappearance of the lesion. The symptoms are somewhat analogous to those produced by enlargement of the glands at the base of the tongue, and to those arising from a varicose condition of the vessel in the same locality.

I can offer no suggestion as to the etiology or pathology of this condition.

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